scalamobil® iQ

Gebrauchsanweisung
scalamobil S30/scalacombi S31

Operating Instructions for the
scalamobil S30/scalacombi S31

Instructions d'utilisation du
scalamobil S30/scalacombi S31

Instrucciones de manejo del
scalamobil S30/scalacombi S31

Istruzioni per l'uso del
scalamobil S30/scalacombi S31

Instruktionsbok
scalamobil S30/scalacombi S31

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US/GB

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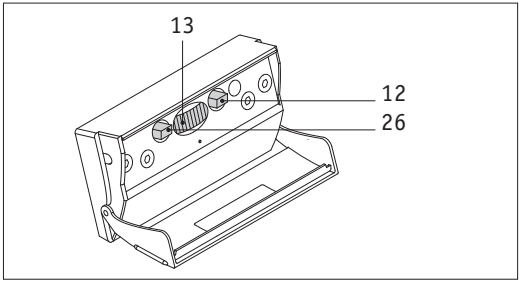
alber®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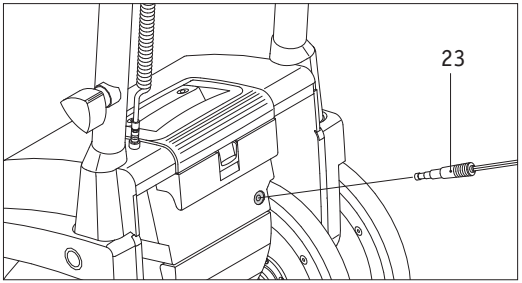
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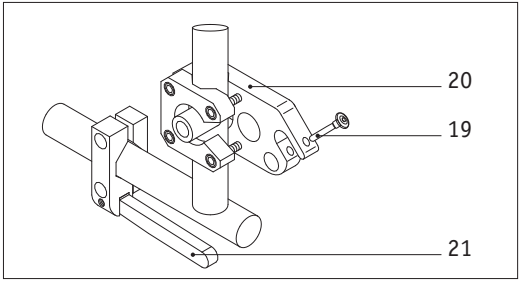
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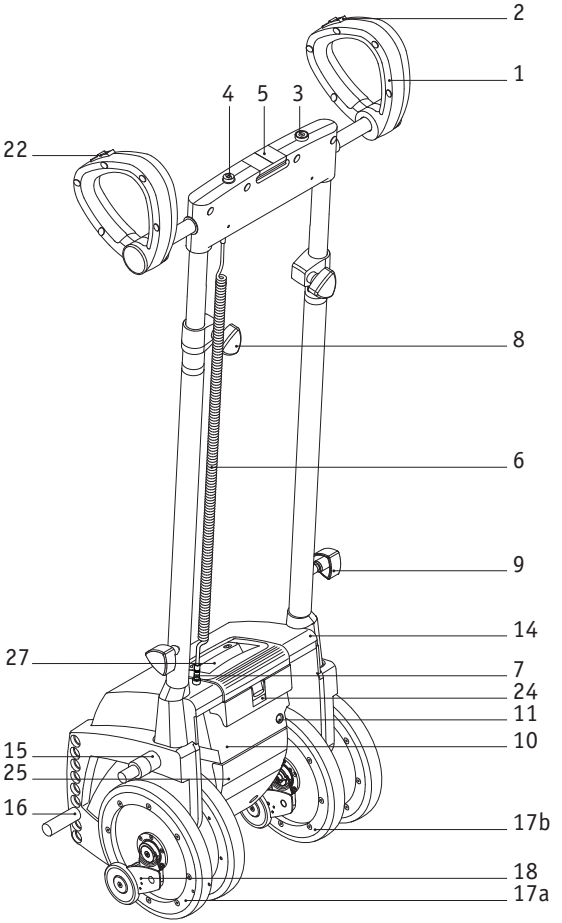
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Congratulations,

with the acquisition of the **scalamobil**,

you chose a powerful, dependable and multifunctional stairclimbing device of superior technology. With the help of the highly flexible scalamobil you will experience an entirely new dimension of mobility. In this respect you will have great pleasure with the scalamobil, and, appropriately operated, it will soon prove indispensable to you.

Please read the user's manual carefully to get to know the scalamobil and its variety of functions. Some steps of operation may look complicated at first, but you will see that after a free of charge training session by your alber-representative the operation will turn out to be effortless and easy.

Your alber-representative is going to walk you through each step of operation and will answer all further questions that may arise. In addition, the alber representatives will be happy to help you with any problems you might have.

The alber-team wishes you a lot of fun with the **scalamobil**.

Please note the following safety instructions!

In the interest of your safety, the scalamobil may only be used by people who:

- have been trained to use the scalamobil appropriately,
- are capable of climbing stairs backwards,
- are capable of lifting at least 20 % of their own weight
- are in good physical shape and psychologically stable.

The training session on how to operate the scalamobil properly is part of the delivery package and free of charge. It is done at your convenience by your **alber**-representative.

The efficiency of the scalamobil may be affected by electromagnetic fields, generated for example, by mobile telephones. The scalamobil, therefore, should be switched off if mobile telephones are being used in the close vicinity of the wheelchair.

If the wheelchair with additional scalamobil is subsequently equipped with an e·fix or viamobil it must be noted that the driving properties of the scalamobil may be altered radically due to the potentially changed center of mass when climbing stairs.

The scalamobil can also affect other equipment such as theft-proof cabinets in departmental stores.

Do not use the scalamobil before you participated in the training session.

1.1
Delivery Package

· standard **scalamobil S30 IQ**

· alber-charger BC 2401A

· Operating instructions

· upper bolt

· lower bolt

It is standard that the upper bolt [15] and the lower bolt [16] are attached to the scalamobil and already adjusted to the wheelchair by alber.

Optional Accessories:

· X6-scalaport

· X3-scala-chair

· headrest

· anti tippers

· safety belt

· spare batteries

Your wheelchair must be equipped with special fixtures to attach the scalamobil. If this is not the case, please contact your dealer or one of the alber-representatives.

Essential Parts

(Please open out the overview diagram in the front cover)

1 Gripping loop
2 Driving switch
3 On/Off button
4 Display element
5 Lock for the horizontal axle
6 Helix cable plus plug
7 Plug
8 Adjustment knobs for the height of the handlebars
9 Fastening screws for the handlebars
10 Electronic unit
11 Connecting socket for the charger
12 Single step switch
13 Rotation regulator
14 Housing
15 Upper bolts
16 Lower bolts
17a Outer wheels
17b Inner wheels
18 Brakes
19 Locking pin
20 Upper holding device
21 Lower holding device
22 Direction of travel switch
23 Charger plug
24 Battery housing locking mechanism
25 Control compartment cover
26 Driving program selection switch
27 Carrying handle

1.2
Technical Data

scalamobil S30

Height of the power unit:	445 mm (with the clamping device)
Height of the power unit:	360 mm (without the clamping device)
Width of the power unit:	375 mm
Total height, stowed handlebars:	1140 mm
Total width:	480 mm
Weight with batteries:	24,5 kg
Weight without batteries:	21,8 kg
Weight without handlebars:	19,3 kg
Maximum weight of passenger:	120 kg
Voltage:	24 V
Climbing speed:	adjustable, 6-18 steps/minute
Capacity with a fully charged battery:	up to 300 steps
Minimum step depth:	110 mm
Maximum step height:	200 mm

Technical data – battery

Type of battery:	Sealed lead gel battery
Battery capacity:	3,3 Ah
Battery dimensions:	134 x 67 x 61 mm
Maximum current:	15 A

Technical data – charger

Designation/type:	BC 2401A
Input voltage:	100-240 V
Nominal output voltage:	24 V
Charging current:	1 A
Charging process:	IU0U
Use:	Only in conjunction with the above mentioned battery

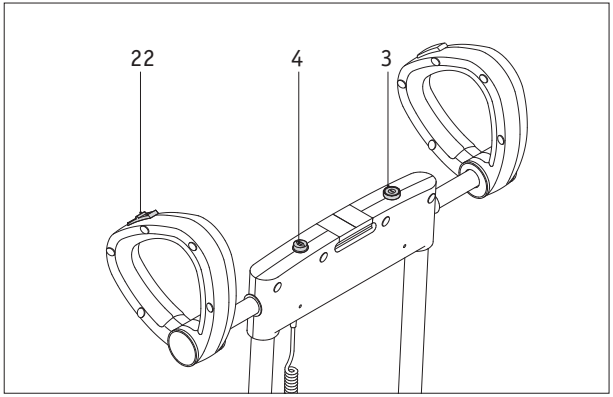
All of the scalamobil's electrical components are protected against dampness, humidity, and water splashes.

Due to continuous development, we reserve the right for design changes.

CE The scalamobil complies with the EC regulation for medical products 93/42/EEC and 89/366/EEC electromagnetic compatibility.

2
Control Components

2.1
On/Off button



The scalamobil is switched on or off by pressing the On/Off button [3]. When switching on the display element [4] simultaneously shows the last direction of travel selected on the direction of travel switch [22] and the state of charge of the battery.

In order to protect the batteries, the scalamobil is automatically switched off if it has not been in use for 5 minutes. At the same time the light symbols in the display element [4] go out.
The On/Off button [3] must be pressed again to re-start the scalamobil.

Note the following indications:

Arrow forwards, steady green light:
"Descending staircase" mode is activated.
(To change over to "Ascending staircase" mode move the direction of travel switch [22] on the left handle cover; see chapter 2.2)

Arrow backwards, steady green light:
"Ascending staircase" mode is activated.
(To change over to "Descending staircase" mode move the direction of travel switch [22] on the left handle cover; see chapter 2.2)

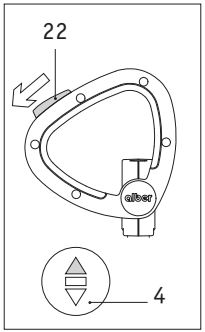
Arrow forwards or backwards, flashing slowly green:
Little residual capacity left in the batteries.
It is recommended that no staircase ascent be attempted. The batteries must be re-charged at once!

Arrow forwards, flashing rapidly green, and square shows steady red light:
The battery capacity is almost completely exhausted. The scalamobil can only travel downwards (emergency state). The driving switch [2] must be switched to the direction "Descending staircase".

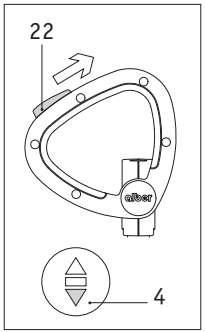
Only steady red light shows in the square:
The battery capacity is completely exhausted.
The scalamobil is unable to move.

2.2
Direction of travel switch

With the direction of travel switch [22] you choose the direction in which you want to go on the staircase.



Pushing the direction of travel switch [22] forwards activates “Descending staircase”.
At the same time the selected direction of travel is shown on the display element [4] by a green arrow (forwards).



Pushing the direction of travel switch [22] backwards activates “Ascending staircase”.
At the same time the selected direction of travel is shown on the display element [4] by a green arrow (backwards).

Always keep an eye on the level of charge of the batteries in the display element [4] and re-charge them in good time. If after charging the batteries it is still not possible to operate the unit then please contact your alber representative.

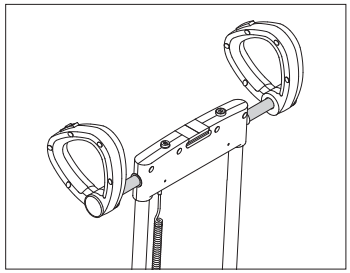
2.3
Lock For the Horizontal Axle [5]

The lock for the horizontal axle is essential for climbing extremely spiral staircases with the scalamobil. The handlebars can be shifted from their regular position either completely to the right or to the left.

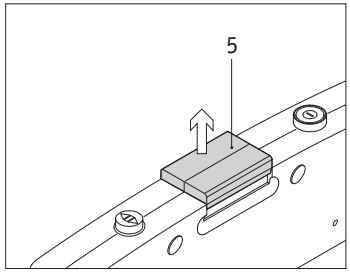
· pull the adjustment knob [5] upward to unlock the safety mechanism.

· push the grips in the desired position; the adjustment knob locks automatically.

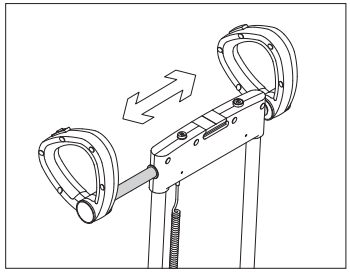
Before operation, please make sure that the lock has fastened.



Handle in the middle (normal position).



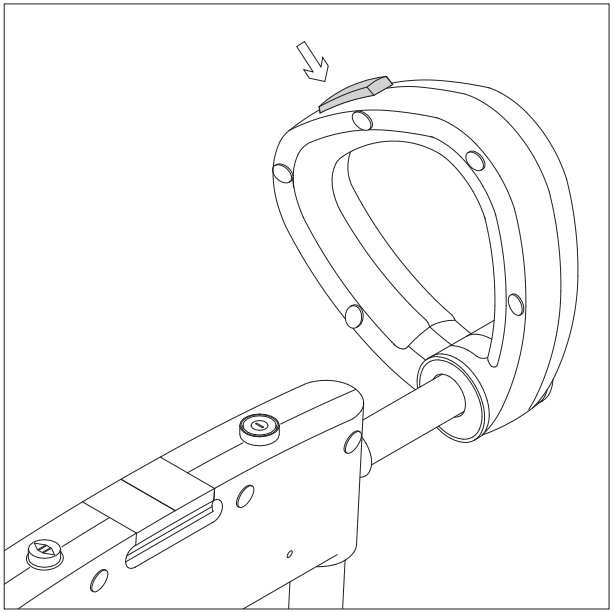
Pull the adjustment button up; safety mechanism is disengaged.



Push handle into the desired position (locking device automatically re-engages).

2.4
Driving Switch [2]

After switching on and selecting the desired direction of travel (see chapter 2.1 and 2.2) the scalamobil is set in motion with the driving switch [2] .



- Through constant pressure on the driving switch [2] the scalamobil moves in the selected direction.

- Releasing the driving switch [2] causes the scalamobil to stop instantly.

- When single-step switch is activated (see chapter 2.6.1), the scalamobil travels one complete climbing cycle over a single step and then stops.

- The driving switch [2] then has to be released and pressed again to travel up the next step.

- When single-step switch is not activated a continuous operation takes place until the driving switch [2] is released.

2.5.1
Charging the battery

Your scalamobil is equipped with a set of high-performance batteries, that permit up to 300 steps to be traveled. After each use of the scalamobil the batteries should be re-charged, however, to avoid an unintentional standstill on the staircase due to empty batteries.

· First insert the plug from the charger [23] into the socket [11] of the battery pack.

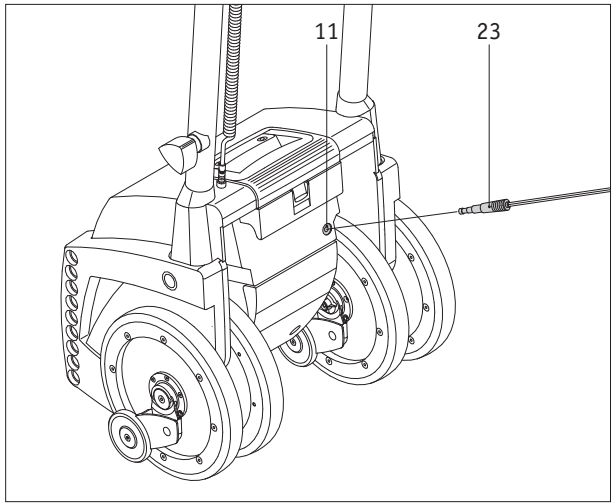
· Then connect the charger to a mains socket in the wall.

· During the charging cycle the LED display on the charger shows a steady red light.

· Once the charging procedure is complete the red LED on the charger flashes.

During the charging cycle the scalamobil is automatically switched off.

After charging the batteries pull the plug [23] out of the charger socket [11].



Please make sure that the batteries are re-charged every time after the scalamobil has been used. If the scalamobil is not in use, then the batteries should always be connected to the charger. The alber mains charger automatically switches to charge maintenance once the batteries are fully charged. It is therefore not possible to overload or damage the batteries. Please also observe the instructions contained in the operating manual that comes with the charger.

2.5.2
Removing the battery

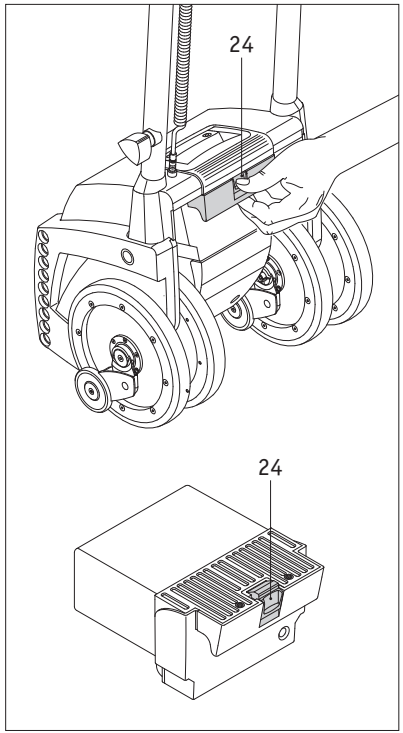
Normally the battery integrated into the scalamobil housing does not need to be removed.

If, however, you wish to re-charge the battery during a trip in the car, for example, then you can take it out entirely.

· Press the locking mechanism [24] on the battery housing downwards.

· Pull the battery out of the scalamobil housing.

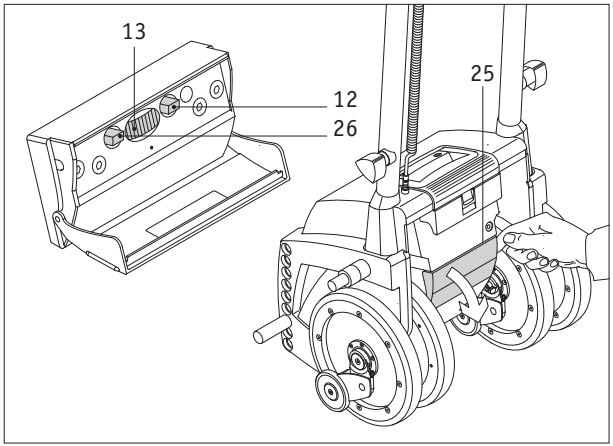
· When the battery is re-inserted into the scalamobil housing, the locking mechanism [24] engages automatically.



Additional batteries can be obtained from alber as accessories.

2.6
Control compartment

In the control compartment underneath the battery are the button for activating the single-step switch [12], the rotation regulator [13] and a driving program selection switch [26]. In order to access the control elements you just need to swing the cover [25] downwards.



Under no circumstances must you turn the rotary switch to the right of the single-step switch [12]. This was adjusted by the specialist dealer to exactly suit your staircase. Improper adjustment to this switch may result in functional problems with your scalamobil.

2.6.1
Single Step Switch [12]

To activate the single step mode you press the single step switch. Read more about this function in chapter 4.4.

Inward position: single step switch turned on

Outward position: single step switch turned off

2.6.2
Rotation Regulator [13]

With the rotation regulator you can adjust the climbing speed to your liking. The lowest speed is 6 steps per minute at position 1 of the switch; the highest speed comes to 16 steps per minute at position 6.

New users should avoid the highest speed when they first learn how to operate the scalamobil until they are used to handle the device safely.

2.6.3
Driving program selection switch [26]

When it is delivered to you, the scalamobil is individually set to meet your requirements by an alber representative. Amongst other things, parameters such as the height of the steps on the staircase that you use is permanently stored as “Home staircase mode”.

If you travel up or down a staircase other than the one stored in the device, then you can temporarily deactivate the programmed setting by pressing the driving program selection switch [26]. The scalamobil will then operate using the factory setting or “Other staircase mode”.

If you then wish to revert to the preset staircase, place the driving program selection switch [26] back to the “Home staircase mode” setting.

For further details on these modes of operation, please contact your alber representative.

Switch pressed in: Home staircase mode activated

Switch not pressed in: Other staircase mode activated

3
Initial Operation

3.1
Safety of the wheelchair occupant

The first priority while climbing stairs is always the safety and comfort of the occupant.
Therefore, please follow the safety instructions listed in chapter 3.2 and the recommendations made in the training session carefully.
In addition, the following situations may arise occasionally:

- In case the occupant feels ill while climbing stairs, stop climbing and take care of the occupant.

- In case the occupant has back problems, reduce the climbing speed. The scalamobil's wheels touch down more softly and the entire climbing process becomes more agreeable to the occupant's needs.

- During the climbing process some occupants may feel a tension in the neck. In such cases it is advisable to attach an additional headrest to the scalamobil.

- In principle every climbing process has to be completed. However, if the situation arises and you must interrupt the climbing process, lay the scalamobil with the attached wheelchair backwards on the stairs. Due to the safety brakes, it is impossible that the scalamobil rolls over the edge of the step.

- During the staircase mounting procedure the wheelchair occupant should be in a quiet and relaxed state of mind. If he should for some reason (e.g. due to his state of health) exercise violent movements, then travel on the staircase should be interrupted at once. Rest the scalamobil with the attached wheelchair on the steps and calm down the occupant before proceeding with the travel.

3.2
Safety Instructions

- Only persons who participated in a training session may operate the scalamobil.
- The scalamobil may only be used with specially adjusted wheelchairs and/or accessories.
- Never use the scalamobil inside on wet, slippery, waxed surfaces or on loose rugs or carpets.
- Never use the scalamobil outside on wet, slick or icy grounds.
- Use the scalamobil exclusively on staircases with a step depth of a minimum of 11 cm and a maximum step height of 20 cm.
- Please wear dry, non-skidding, closed footwear when climbing stairs with the scalamobil.
- Never release the handlebars while operating the scalamobil on stairs.
- Never touch the turning wheels when you climb stairs or clean the device.

Make sure that no extraneous particles (e.g. pebbles) get into the power unit or the brakes.

If the wheelchair with additional scalamobil is subsequently equipped with an e·fix or viamobil it must be noted that the driving properties of the scalamobil may be altered radically due to the potentially changed center of mass when climbing stairs.

You may never use the scalamobil in the vicinity of inflammable gases.

3.3
Performance Check Before Operation

Due to operating safety, you should check the scalamobil's brakes before each use, (the check is done without the wheelchair).
Further, you should only use the scalamobil with fully charged batteries.

· Please check whether the adjustment knobs [8] to adjust the height of the handlebars are tightly fastened.

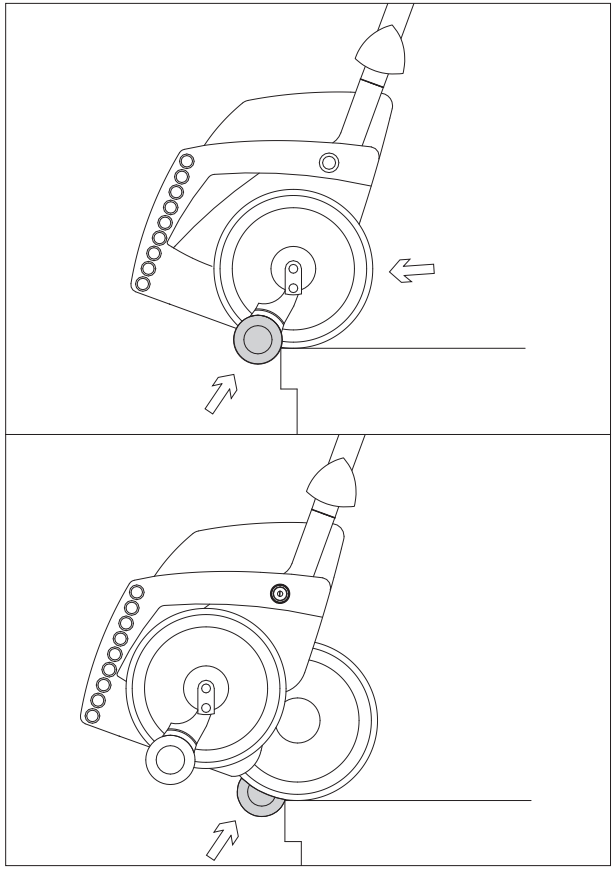
· Switch the unit on as described in chapter 2.1 and place the direction of travel switch [22] in the position "Up" (arrow symbol ↑).

· Put the scalamobil on the outer set of wheels by pressing the driving switch [2], (the single step mode is not activated).

· Push the scalamobil to the edge of the stairs.

The safety brakes at the outer wheels must lock now; the scalamobil is not supposed to go over the edge of the stairs.

· Pull the scalamobil back from the stairs' edge.



· Place the direction of travel switch [22] in the position "Down" (arrow symbol ↓)

· Place the scalamobil on the inner pair of wheels by pressing the driving switch [2] during deactivated single-step switching.

· Push the scalamobil to the edge of the stairs' again.

The safety brakes at the inner wheels must lock now; the scalamobil is not supposed to go over the edge of the stairs.

If all four brakes work correctly, you may attach the scalamobil to the wheelchair as described in chapter 3.4.

In case not all four brakes lock, do not use the scalamobil. Please contact your alber representative immediately.

3.4
Mounting to the Wheelchair

In order to mount the scalamobil to your wheelchair, it has to be equipped with a special **alber**-holding device. If this device has not been attached to your wheelchair yet, your dealer, or the **alber**-representative delivering the scalamobil will do so.

· Remove the locking pins [19] from the upper bracket [20].

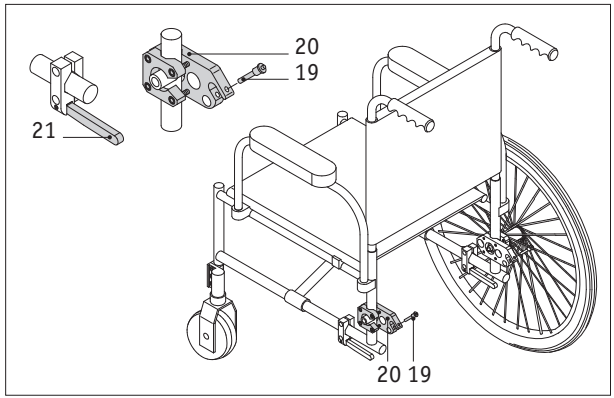
· Make sure that the wheels of your wheelchair are locked with their brakes so that the wheelchair does not move.

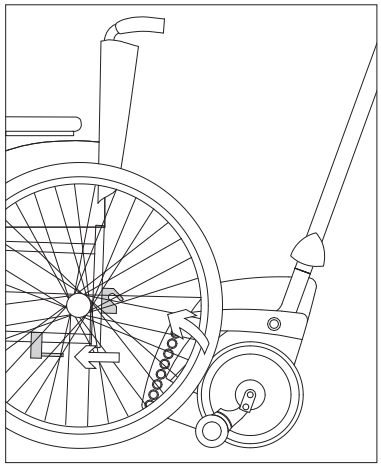
· Set the rotation regulator [13] at the lowest climbing speed (position 1).

· Align all four wheels of the scalamobil by pressing the driving switch [2].

· Move the lower bolts [16] into the lower hooks of the holding device [21]; make sure that the scalamobil is in the middle of the wheelchair.

· Place the direction of travel switch [22] in the “Upwards“ position (see chapter 2.1) and press the driving switch [2] so long until the upper mount [15] catches in the mounting forks of the bracket [20].

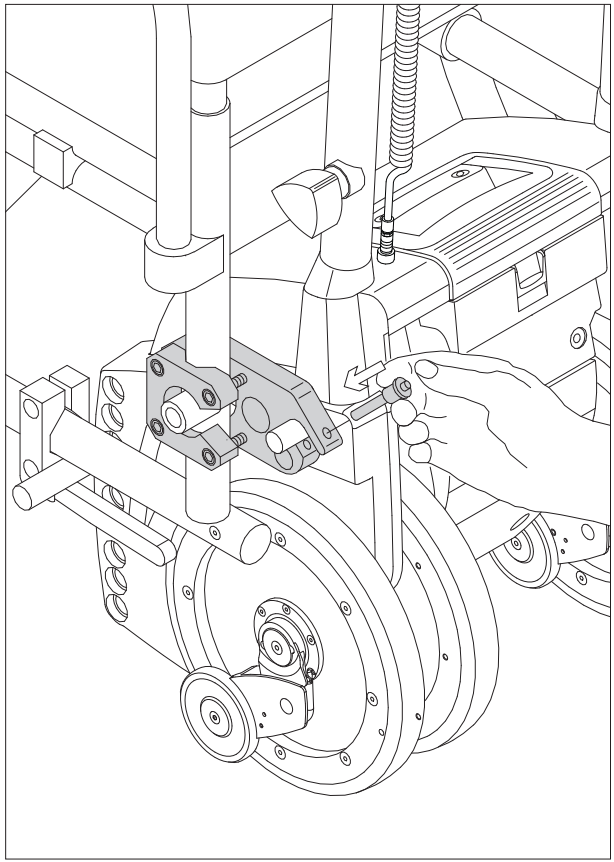




· lock the upper holding device [20] with the locking pin [19]. Unlock the locking pin by pushing in its center with your thumb, then drive the locking pin all the way into the holding device.

In order to begin climbing stairs, you need to unlock the brakes of your wheelchair's back wheels and remove the wheels. See chapter 4 on how to climb stairs.
If you want to continue driving with your wheelchair on level ground, once more align the wheels of the scalamobil in a parallel position by pushing the driving switch [2]. Then unlock the brakes of the wheelchair. The scalamobil is attached to the wheelchair and ready to use, but it does not hinder the wheelchair's regular operation.

! Use only the original alber-locking pins, tested for their safety, to secure the upper holding device. The alber locking pins are part of the delivery package. If you lose them, never replace the locking pins by nails, screws or the like. Do not touch the wheels of the scalamobil ever when the latter is in operation.



3.5
Height Adjustment of the Handlebars

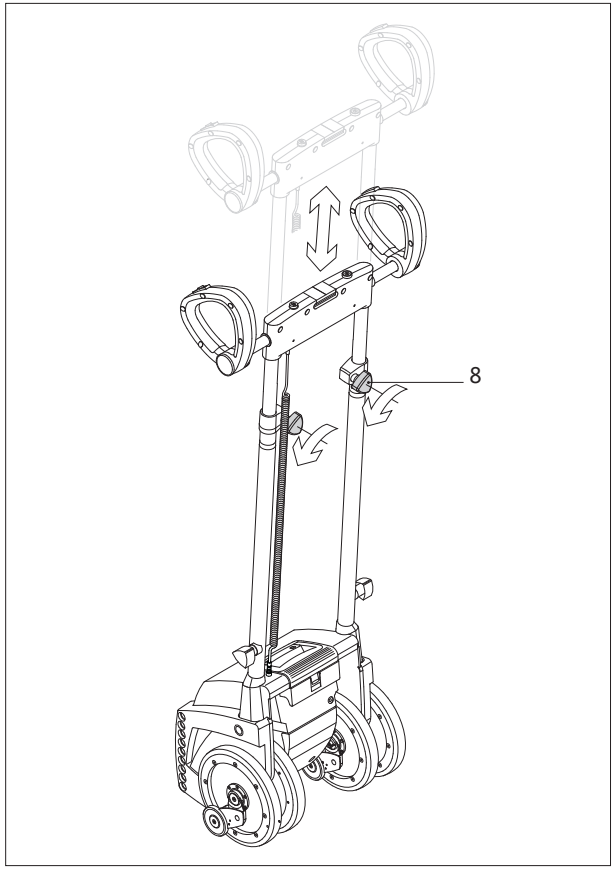
In order to use the scalamobil comfortably, the height of the handlebars can be adjusted.

· Turn the adjustment knobs [8] approximately one rotation counter clockwise.

· Put the handles into the desired position.

· Retighten the adjustment knobs [8].

The adjustment range above ground lies between 1.15 m and 1.55 m. Ideally the grips should be at breast-height of the person operating the scalamobil. Only use the scalamobil with the locking grips tightly fastened.



3.6
Removal from the Wheelchair

To remove the scalamobil from the wheelchair you first need to attach its big wheels again.

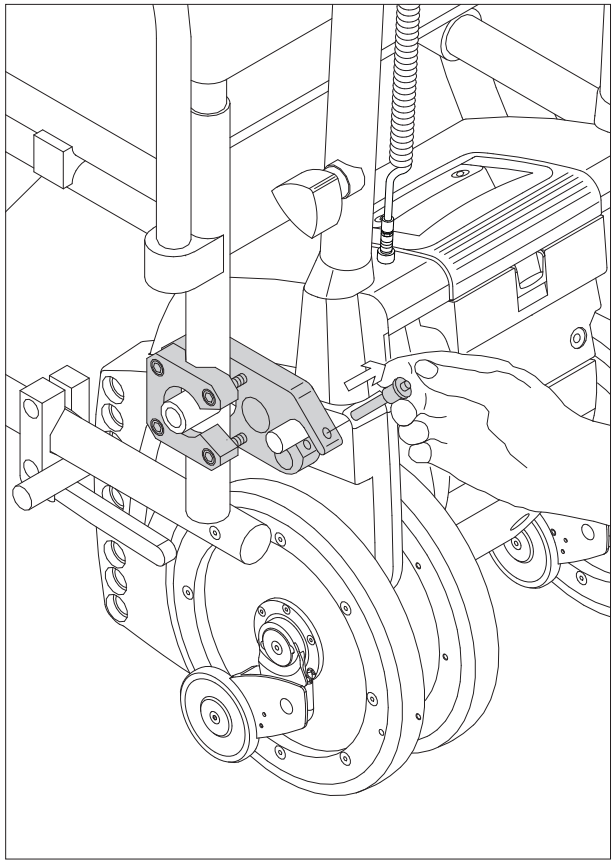
· Turn the rotation regulator [13] to the lowest climbing speed (position 1).

· Place the direction of travel switch [22] in the position "Downwards" (see chapter 2.1) and press the driving switch [2] so long until the outer wheels of the scalamobil lift the wheelchair.

· Insert the wheelchair's wheels into their fittings.

· Lock the wheelchair's wheels with its brakes so that the wheelchair cannot be moved.

· Remove the **alber**-locking pins [19] from the forks of the upper holding device [20] by pressing your thumb on the center of the pin while simultaneously taking it out with your middle and index finger.

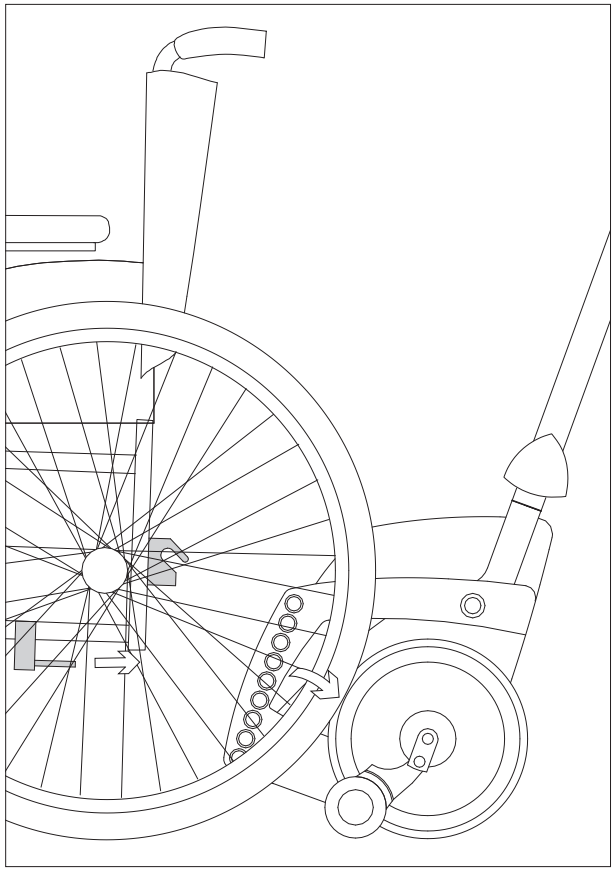


· Place all 4 scalamobil wheels in a parallel position by pressing the driving switch [2] (The unit lowers itself, the wheelchair comes to rest on its wheels).

· Remove the scalamobil from underneath the wheelchair.

· Re-insert the locking pins [19] into the mounting fork of the upper bracket [20].

Please make sure that the wheelchair's wheels are securely locked into their fittings.



3.7
Removal of the Handlebars

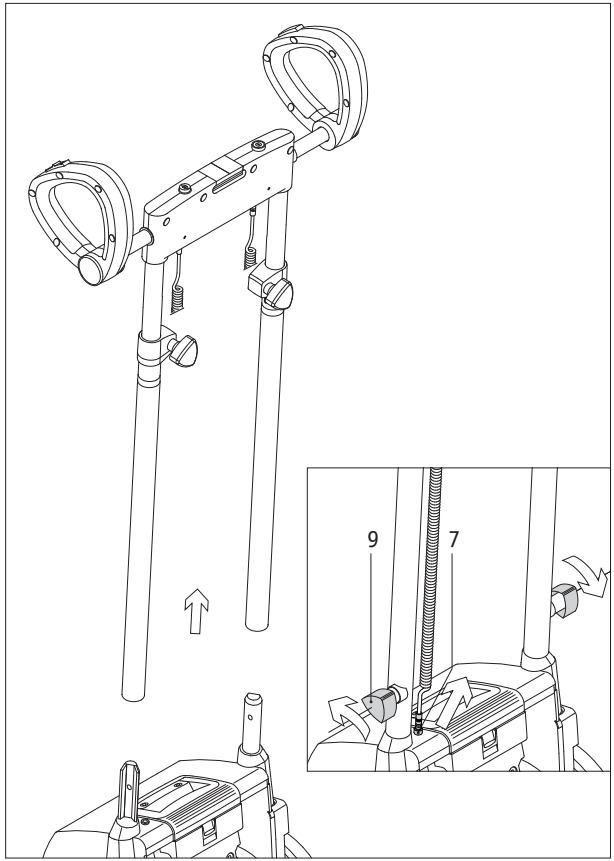
If necessary, for instance when transporting the scalamobil in your car, the handlebars can be completely removed.

· Push the grips together (see chapter 3.5), so that they take up a minimum of space.

· Unplug the plug [7] on top of the housing.

· Loosen the fastening screws [9] located on the side; turn them until they nearly come loose.

· Lift out the entire handlebars.



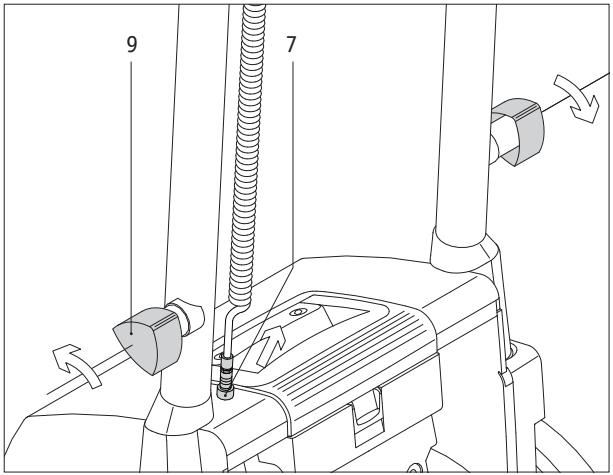
3.8
Mounting the Handlebars

· Push the handlebars into their fixtures.

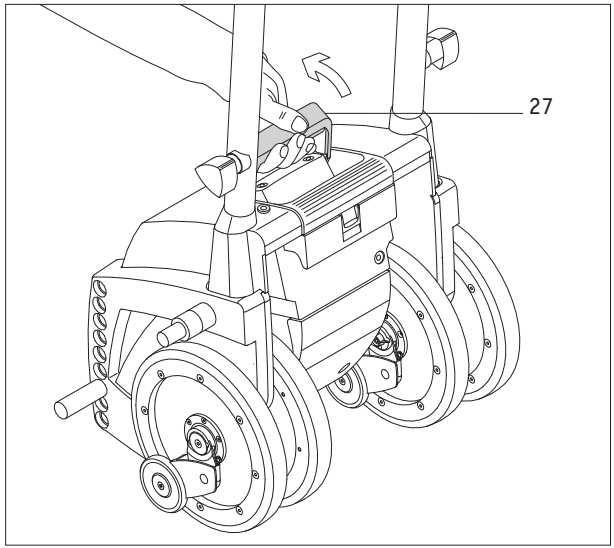
· Screw on the fastening screws [9], and make sure that they are tight.

· Put the plug [7] into its socket on top of the housing.

· Adjust the height of the handlebars so that the person operating the scalamobil can easily handle the device (see chapter 3.5 height adjustment of the handlebars).



3.9
Carrying handle



After you have removed the handle as described in the last chapter, you can fold out the carrying handle [27] that is integrated into the housing, in order to be able to transport the scalamobil.
If the carrying handle [27] is no longer in use, then fold it back into the housing.
When transporting the scalamobil in the car it is recommended to remove the battery (see chapter 2.5.2).

4
Operation

4.1
General instructions

When it is delivered to you, the scalamobil is individually set by the alber representative to meet your requirements, particularly to the staircase on which you will be using it. Please make sure that you allow your alber representative to explain all the possible scalamobil settings to you when you are being instructed in the operation of the device. If required, you may also change the driving speed (see chapter 2.6.2) of the scalamobil, and activate and deactivate the driving program (see chapter 2.6.3) and the single-step switch (see chapter 4.4).

The direction of movement of the scalamobil can only be changed when it is at a standstill, i.e. not whilst it is in motion on the stairs, using the direction of movement switch [22].
However, if the direction of movement is changed during travel, then the change does not take effect until the driving swich [2] has been released and pressed again.

There is a sensor integrated into the scalamobil which, only during the ascent of a staircase, constantly compares the inclination of the device to the preset ideal position. If the deviation is too great (only in “home staircase mode”) the scalamobil climbs to the next step and stops there. Further travel is then only allowed if you reset the correct angle of inclination (by going to the next step up, for example). Depending on the programming undertaken by the alber representative, further movement may then occur either by keeping the driving switch [2] depressed or by releasing and re-pressing the driving switch [2].

During the training on the scalamobil, carried out by your specialist dealer or alber representative, you will get more information regarding the ideal angle of inclination for climbing stairs.

4.2
Upstairs (single step switch is not activated)

Before each climbing process there must be a performance check (see chapter 3.3).

In order to climb stairs, you need to remove the back wheels of your wheelchair. First you attach the scalamobil to your wheelchair as described in chapter 3.4.
Then you do as follows:

· Push the direction of travel switch [22] back (also see chapter 2.1).

· If you have not done so already, turn on the scalamobil by pressing the On/Off button [3].

· Align all four wheels of the scalamobil by pressing the driving switch [2].

· Adjust the handlebars to breast height of the person operating the scalamobil (see chapter 3.5).

· Tilt the scalamobil plus wheelchair backwards and towards you.

· You have reached an ideal position when you feel hardly any pressure forward or backward accordingly.

· Drive the scalamobil backward to the stairway.

· Move up two steps above the level of the wheelchair.

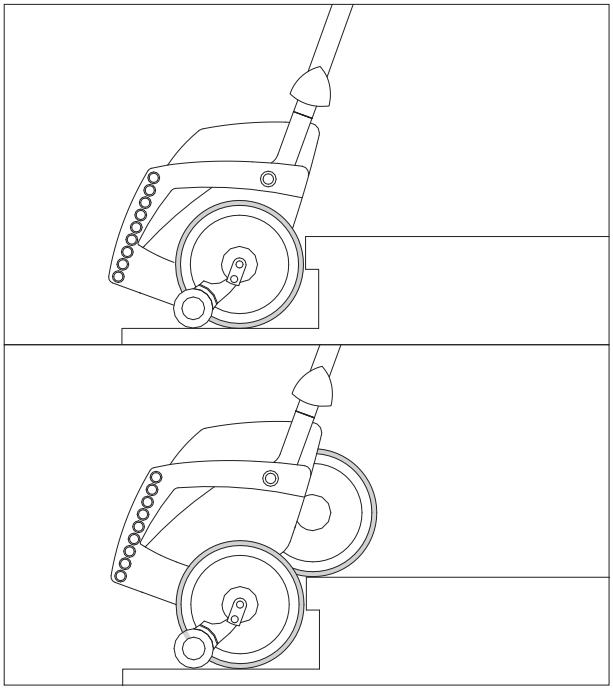
· Pull the scalamobil against the lowest step.

· Push the driving switch [2]; the scalamobil begins climbing. (As soon as you release the driving switch [2], the climbing process is interrupted immediately; the wheels stand still).

The inner pair of wheels touches down on the first step. At the same time the scalamobil with the attached wheelchair is lifted. As soon as all four wheels are in a parallel position once more, the first step has been climbed – the climbing cycle has been completed.

When climbing regular stairs with standard depth, you may push the driving switch [2] continuously (recommended for skilled users only) and climb step after step without interruption.

When climbing stairs with an extremely high depth, interrupt the climbing process until you have pulled both pairs of wheels in parallel position to the next step's edge.



During the climbing process always pull the scalamobil towards you. Also the scalamobil plus wheelchair needs to remain in the same tilted, balanced position all the time. Never release the grips of the scalamobil!

Once you have reached the top of the stairs, pull the scalamobil plus wheelchair as far back that the wheelchair's front wheels are securely on the floor. In no instance are they to jut out of the step's edge!

The wheels of the scalamobil are now in parallel position. In this combination, scalamobil plus wheelchair, you may cross short distances within your house. However, for further distances or for use outside, we recommend that you attach the wheelchair's big wheels (see chapter 3.6).

When the scalamobil is attached to the wheelchair, the center of gravity of the whole mechanism shifts backward. Thus, before the patient gets out of the wheelchair either remove the scalamobil or by pushing the driving switch [2] advance the outer wheels [17a] until they touch the floor to function as an additional support.

While you use the scalamobil on stairs you need to make sure that the wheelchair driver sits upright and leans on the wheelchair's back. He further needs to put his feet on the foot rests.

4.3
Downstairs (the single step switch is not activated)

Before each climbing process there must be a performance check (see chapter 3.3)

When you climb downstairs, you also need to remove the wheels of your wheelchair (see chapter 3.4).
Then do as follows:

· Push the direction of travel switch [22] forwards (also see chapter 2.1)

· If you have not done so already, turn on the scalamobil by pressing the On/Off button [3].

· Align all four wheels of the scalamobil by pushing the driving switch [2].

· Adjust the handlebars to breast height of the person operating the scalamobil. (also see chapter 3.5).

· Tilt the scalamobil with the attached wheelchair toward you and balance it out.

· You have reached an ideal position when you hardly feel any pressure forward or backward accordingly.

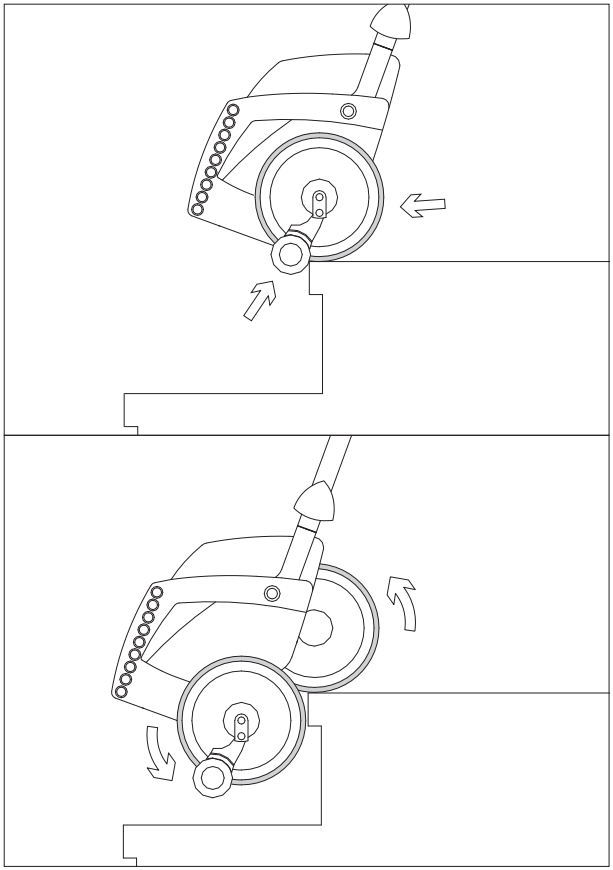
· Advance slowly to the edge of the stairs until the automatic brakes grip blocking any further advancement.

· Push the driving switch [2]; the scalamobil begins to descend the stairs. (If you release the driving switch [2], the climbing mechanism is interrupted immediately; the wheels come to a standstill).

While the inner pair of wheels remains on the upper step, the outer pair of wheels descends to the following step. Simultaneously the scalamobil plus attached wheelchair moves down. As soon as all four wheels are in a parallel position again, you climbed down one step, the climbing cycle has been finished.

When descending regular stairs with standard depth, you may push the driving switch [2] continuously climbing down step after step without interruption (recommended for skilled users only).

When descending stairs with an extremely high depth, you should interrupt the descending process until you have pushed the pairs of wheels (in parallel position) forward to the edge of the following step.



While descending stairs always push the scalamobil slightly forward, away from you, until the brakes grip on the edge of the following step. Also the scalamobil needs to remain tilted approximately in the same angle. Finally, never release the grips of the scalamobil!

When you reached the end of the stairs, push the scalamobil with the attached wheelchair away from the stairs. The scalamobil's wheels are still in parallel position. In this combination, scalamobil plus wheelchair, you may cross short distances in your house or apartment.

However, for further distances or for use outside, we recommend to remount the wheelchair's big wheels (see chapter 3.6).

When the scalamobil is attached to the wheelchair, the whole mechanism's center of gravity shifts backwards. Thus, before the occupant gets out of the wheelchair, either remove the scalamobil or by pushing the driving switch [2], advance the scalamobil's outer pair of wheels [17a] until they touch the floor and function as an additional support.

4.4
Climbing Stairs in Single Step Mode

In chapters 4.2 and 4.3 you have been introduced in detail to the individual steps to climb stairs safely. By pushing the driving switch [2] continuously the scalamobil's wheels begin moving; releasing the switch results in the immediate standstill of the wheels. A continuous use is also possible simply by keeping the driving switch [2] pressed.
When you activate the single step switch [12], the climbing process is slightly different:

- Pushing the driving switch [2] permanently also results in the rotation of the scalamobil's wheels; however, after one full rotation they automatically come to the correct parallel position, even if you still press the driving switch [2].

- To continue climbing or descending you need to release the driving switch [2] and push it continuously once more to initiate the scalamobil's next climbing cycle.

When you need to climb spiral stairs, the single step mode is particularly useful. As stated in chapter 4.6, there it is indispensable to advance the scalamobil's outer wheels to the edge of the following step. When you activate the single step switch, you automatically prevent an erroneous initiation of the climbing cycle before the scalamobil's wheels are all the way at the edge. Therefore, the climbing and descending becomes even safer for both the person operating the scalamobil and the person being transported.
For persons unskilled in operating the scalamobil, we recommend to activate the single step switch also for climbing regular stairs.

If you continuously push the driving switch [2], the wheels complete one rotation. As soon as you release the driving switch [2] the wheels come to a standstill, also when the single step is activated.

4.5
Special Soft Step Function

The Soft Step feature is integrated into the scalamobil control program and activated in the factory settings. If desired, your alber representative can deactivate the function.

When Soft Step is activated, and depending on the selected driving speed, the rotation speed of the scalamobil motor decreases just before the wheels come to rest on a step. Once this has been surmounted, the motor increases its speed of rotation again until just before the next step is reached. This movement procedure produces a softer landing of the scalamobil wheels on the steps of the staircase, resulting in the wheelchair occupant noticing a much gentler course of movement.

4.6
Operation on Winding Stairs

In principle the operation of the scalamobil climbing or descending winding stairs follows the analogous steps described in chapter 4.2 and 4.3. Also the same safety instructions apply. However, we would like to call your attention to the following particular characteristics, since the inside wheels cross a shorter distance than the outside wheels.

4.6.1
Upstairs

· If you have not done so already, turn on the scalamobil by pressing the On/Off button [3].

· Advance the scalamobil's four wheels so that they touch the edge of the step.

· Place the direction of travel switch [22] in the "Up" position (arrow symbol ↑) and press the driving switch [2]. The scalamobil descends one step.

· Release the driving switch [2] when all four wheels of the scalamobil are in a parallel position; the climbing process is interrupted.

· Advance to the next step by pulling the outer wheels backward until they touch the edge of the following step.

4.6.2
Downstairs

· If you have not done so already, turn on the scalamobil by pressing the On/Off button [3].

· Advance the scalamobil to the edge of the step so that all four wheels touch the latter.

· Place the direction of travel switch [22] in the “Down” position (arrow symbol ↓) and press the driving switch [2]. The scalamobil descends one step.

· Release the driving switch [2] when all four wheels of the scalamobil are in a parallel position; the climbing process is interrupted.

· Advance the scalamobil to the next step by pushing the outer wheels forward until they touch the edge of the following step.

· Begin the next climbing cycle as soon as the brakes grip on the step’s edge.

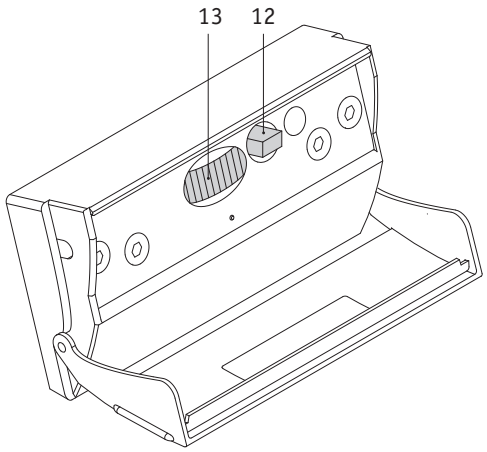
Recommendation:
since the climbing process must be interrupted on each step, we recommend to activate the single step switch (see chapter 4.4).

If necessary you may shift the handlebars horizontally to gain more space on your left or right side, be it the wall or the handrail (see chapter 2.3).

The following information relates exclusively to the scalacombi S31 with integrated seating unit, not to the scalamobil S30

The scalacombi possesses almost identical technical features to the scalamobil S30, but differs from it in the one staircase climbing function.

The driving program selection switch (see chapter 2.6) situated in the control compartment does not exist on the scalacombi. Consequently the “Home and Other staircase” functions (see chapter 2.6.3) are missing. All the other functions described in this operating manual are entirely at your disposal or may be activated by your **alber** representative.



Control compartment scalacombi

[12] Activation of the single-step switch
For functional description see chapter 2.6.1

[13] Rotation regulator
For functional description see chapter 2.6.2

Please also observe the information enclosed separately for attaching the seating unit.

5
Care and Maintenance

5.1
Information Concerning the Batteries

The batteries of your scalamobil are maintenance-free and rechargeable. Their durability depends largely on the charging/discharging cycle. For instance, lead batteries are good for more than 1000 partial discharges and for more than 200 discharges of the whole capacity, if a total discharge is avoided. The scalamobil's built-in electronics constantly check the state of the battery thus preventing a total discharge.

- Avoid a total discharge of the battery. Recharge your battery after each partial discharge, i.e. after each time you use the scalamobil.

- Lead batteries are subject to a so-called self-discharge. Therefore, you should connect the battery of the scalamobil, whenever possible, to the **alber** charger. The **alber**-automatic charger immediately turns to retaining the charge when the battery is fully charged, i.e. it is, therefore, impossible to overcharge the batteries.

- If you store batteries for a longer period of time without charging them, they lose some of their capacity. However, after charging and discharging them several times, they regain their full capacity.

The batteries regain their full capacity not before charging and discharging them three to four times.

- Incorrect handling of the battery may result in the leakage of electrolytic liquid.

- This may cause injuries to the skin or damage clothing.

- Should skin or eyes come into contact with the electrolytic liquid, rinse immediately with clear water and consult a doctor.

- Do not expose the battery to fire or burn. This may cause the battery to explode.

- Do not short circuit the battery. A short circuit causes extremely high currents which may damage the battery or the device.

- After expiry of the service life, return the battery to your **alber** representative who will dispose of it correctly.

The scalamobil's batteries can be charged and discharged in any position. They are considered as safe as dry cells and approved for air travel by DOT and IATA.

5.2
Care

5.2.1
Charging the Battery

Your scalamobil uses up energy each time you employ it. If the battery is fully charged, you can climb approximately 300 steps. However, you should never totally discharge your battery because it may be damaged by it. We, therefore, recommend to recharge the battery after each time you use the scalamobil.

To charge the battery only use the alber-charger included in the delivery package. The alber charger automatically switches itself off as soon as the battery is fully charged. Thus, it is impossible to overcharge it.

5.2.2
Cleaning

The outside of the scalamobil's 4 big wheels where the brakes are located must be cleaned regularly with alcohol to ensure the efficient functioning of the brakes.
If your scalamobil is in use daily, you need to clean said parts weekly, otherwise once a month is sufficient.
The powered wheels and the brakes are checked during the biannual safety check, and if necessary substituted by new parts. All other components can be cleaned with regular, mild household cleaners.

5.3
Maintenance

Your scalamobil is a low-maintenance device. However, in the interest of your safety, have the scalamobil thoroughly checked every two years, even if there aren't any outward signs of damage or malfunction. For any maintenance work please see your alber representative.

6
Quick help in case of faults

What to do if...	Remedy	Contact...
the brakes do not grip properly during the performance check?	clean the wheels and brake drums with alcohol	
the brakes still do not grip properly after you cleaned them with alcohol	stop using the scalamobil	your alber-representative
the batteries cannot be recharged	this malfunction can only be repaired at Ulrich Alber GmbH	your alber-representative
the scalamobil cannot be turned on	remove the charger	
the scalamobil still cannot be turned on, even though the charger has been removed		your alber-representative
The scalamobil comes to a standstill during staircase climbing	Change the angle of inclination of the scalamobil (it may be necessary to release and re-press the driving switch [2]). If the scalamobil still does not move press the On/Off button [3] once or twice.	

What to do if...	Remedy	Contact...
The scalamobil comes to a standstill during staircase climbing and correcting the angle of inclination does not help	Lay the scalamobil to the back. The automatic safety brakes will prevent it rolling off the edge of the step.	A second person who can assist you in lifting the scalamobil step by step either up or down
The LED display in the direction of travel display element [4] is faulty?	The scalamobil can still be used for a short time; it must be repaired as soon as possible.	your alber-representative
Direction of travel switch [22], driving switch [2] or On/Off button [3] jam?	Under no circumstances must you continue to use the scalamobil.	your alber-representative
The red LED indicator flashes in the display element [4]?	Complete the current staircase maneuver as soon as possible and re-charge or exchange the battery.	
The red LED indicator shows a steady light in the display element [4]?	Charge or exchange the battery.	

7
Warranty and Liability

7.1
Warranty

The warranty period for the scalamobil is 24 months (12 months for the batteries) from the date that it is handed over to the purchaser.

Excluded from the warranty are

- Parts subject to wear.
- Maintenance work necessary as a result of normal daily use.
- Defects caused by natural wear and tear, improper use, in particular non-observance of operating instructions, accidents, negligent damage, fire or water damage, acts of god and other causes beyond the control of alber.
- Device inspection when no defects are found.
- Devices whose serial number has been changed, disfigured or removed.

For more details please see the General Standard Terms and Conditions of Ulrich Alber GmbH.

8
Disposal

The scalamobil and its optional accessories are products with a long working life. At the end of their useful life they may be returned to your **alber** representative who will ensure that they are properly disposed of in an environment-friendly manner.

Used batteries may also be returned to **alber** at the end of their useful life via your **alber** representative.

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